

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An optical recording medium suitable for recording/reproducing information by irradiating a laser beam at a wavelength between 395~425 nm onto ~~the~~ a recording surface of the optical recording medium, the laser beam being incident from ~~the~~ a substrate side of the optical recording medium through an objective lens having a numerical aperture of 0.62~0.68,

said optical recording medium comprising at least one substrate and at least one recording surface, said substrate having a thickness ~~between 0.2~0.6~~ greater than 0.2 mm, wherein a total thickness of the optical recording medium is substantially 1.2 mm and a capacity of said recording medium is greater than 13.8 Gbytes per one recording surface.

2. (Original) The optical medium of claim 1, further comprising:
a reflective film formed between first and second substrates of the optical recording medium.

3. (Original) The optical medium of claim 2, further comprising:

a recording material layer formed between the reflective film and the second substrate.

4. (Original) The optical medium of claim 1, wherein
a first substrate of the optical recording medium has a pit pattern on a surface thereof; and

a second substrate is formed over the surface of the first substrate.

5. (Original) The optical medium of claim 4, further comprising:
a reflective film formed between the first and second substrates.

6. (Original) The optical medium of claim 1, further comprising:
a first substrate;
a second substrate; and
a third substrate formed over the first substrate such that the second substrate is formed over a first surface of the first substrate and the third substrate is formed over a second surface, opposite the first surface, of the first substrate.

7. (Original) The optical medium of claim 6, wherein the third substrate has a same thickness as the second substrate.

8. (Original) The optical medium of claim 6, wherein the second substrate has a first pit pattern, and the third substrate has a second pit pattern.

9. (Original) The optical medium of claim 6, wherein
the first substrate has a first pit pattern on the first surface thereof and a second pit pattern on the second surface thereof.

10. (Original) The optical medium of claim 9, further comprising:
a first reflective film formed between the first and second substrates; and
a second reflective film formed between the first and third substrates.

11. (Original) The optical medium of claim 10, further comprising:
a first recording material layer formed between the first reflective film and the second substrate; and
a second recording material layer formed between the second reflective film and the third substrate.

12. (Original) The optical medium of claim 10, wherein a total thickness of the first substrate, the first reflective film, the second substrate, the second reflective film, and the third substrate substantially equals 1.2 mm.

13. (Currently Amended) An optical recording/reproducing method of conducting recording/reproducing of information by irradiating a laser beam at a wavelength between 395~425 nm onto a recording surface of an optical recording medium having at least one substrate and at least one recording surface, the substrate having a thickness of ~~0.2~0.6~~ greater than 0.2 mm,

said laser beam being incident on the substrate of the optical recording medium using an objective lens having a numerical aperture of 0.62~0.68, wherein a total thickness of the optical recording medium is substantially 1.2 mm and a capacity of said recording medium is greater than 13.8 Gbytes per one recording surface.

14. (Currently Amended) An optical recording/reproducing apparatus for conducting recording/reproducing for information by irradiating a laser beam onto a recording surface of an optical recording medium having at least one substrate and at least one recording surface, and the substrate having a thickness of ~~0.2~0.6~~ greater than 0.2 mm,

said optical recording/reproducing apparatus comprising at least one laser beam source irradiating the laser beam at a wavelength between 395~425 nm and an objective lens for focusing the laser beam onto the optical recording medium, said objective lens having a numerical aperture of 0.62~0.68, wherein a total thickness of the optical recording medium is substantially 1.2 mm and a capacity of said recording medium is greater than 13.8 Gbytes per one recording surface.

15. (Original) The optical recording/reproducing apparatus as claimed in claim 14, further comprising:

numerical aperture control means for controlling the numerical aperture of the objective lens into 0.35 to 0.40, thereby recording and reproducing a second recording medium with a substrate thickness of approximately 0.6mm.

16. (Original) The optical recording/reproducing apparatus as claimed in claim 15, wherein the numerical aperture control means controls the numerical aperture of the objective lens into about 0.24, thereby recording and reproducing a third recording medium with a substrate thickness of approximately 1.2 mm.

17. (Original) The optical recording/reproducing apparatus as claimed in claim 14, further comprising:

numerical aperture control means for controlling the numerical aperture of the objective lens into any one of 0.35 to 0.40 and about 0.24, thereby selectively recording and reproducing a second recording medium with a substrate thickness of approximately 0.6mm and a third recording medium with a substrate thickness of approximately 1.2mm.

18. (Currently Amended) An optical recording medium suitable for recording/reproducing information by irradiating a laser beam at a wavelength

between 395~425 nm onto ~~the~~ a recording surface of the optical recording medium, the laser beam being incident from ~~the~~ a substrate side of the optical recording medium through an objective lens having a numerical aperture of 0.62~0.68, said optical recording medium comprising:

at least one substrate and at least one recording surface, said substrate having a thickness ~~between 0.2~0.6~~ greater than 0.2 mm, a capacity of said recording medium being more than 13.8 Gbytes per one recording surface;

a first substrate of the optical recording medium having a pit pattern on a surface thereof;

a second substrate formed over the surface of the first substrate; and

a reflective film formed between the first and second substrates.

19. (Currently Amended) An optical recording medium suitable for recording/reproducing information by irradiating a laser beam at a wavelength between 395~425 nm onto ~~the~~ a recording surface of the optical recording medium, the laser beam being incident from ~~the~~ a substrate side of the optical recording medium through an objective lens having a numerical aperture of 0.62~0.68, said optical recording medium comprising:

at least one substrate and at least one recording surface, said substrate having a thickness ~~between 0.2~0.6~~ greater than 0.2 mm, a capacity of said recording medium being greater than 13.8 Gbytes per one recording surface;

a first substrate;

a second substrate; and

a third substrate formed over the first substrate such that the second substrate is formed over a first surface of the first substrate and the third substrate is formed over a second surface, opposite the first surface, of the first substrate.

20. (Original) The optical medium of claim 19, wherein the third substrate has a same thickness as the second substrate.

21. (Original) The optical medium of claim 19, wherein the second substrate has a first pit pattern, and the third substrate has a second pit pattern.

22. (Original) The optical medium of claim 19, wherein
the first substrate has a first pit pattern on the first surface thereof and a second pit pattern on the second surface thereof.

23. (Original) The optical medium of claim 22, further comprising:
a first reflective film formed between the first and second substrates; and
a second reflective film formed between the first and third substrates.

24. (Original) The optical medium of claim 23, further comprising:

a first recording material layer formed between the first reflective film and the second substrate; and

a second recording material layer formed between the second reflective film and the third substrate.

25. (Original) The optical medium of claim 23, wherein a total thickness of the first substrate, the first reflective film, the second substrate, the second reflective film, and the third substrate substantially equals 1.2 mm.

26. (Currently Amended) An optical recording/reproducing apparatus for conducting recording/reproducing for information by irradiating a laser beam onto ~~the~~a recording surface of an optical recording medium having at least one substrate and at least one recording surface, and the substrate having a thickness ~~of 0.2~0.6~~greater than 0.2 mm, a capacity of said recording medium being greater than 13.8 Gbytes per one recording surface, said optical recording/reproducing apparatus comprising:

at least one laser beam source irradiating the laser beam at a wavelength between 395~425 nm and an objective lens for focusing the laser beam onto the optical recording medium, said objective lens having a numerical aperture of 0.62~0.68; and

numerical aperture control means for controlling the numerical aperture of the objective lens into 0.35 to 0.40, thereby recording and reproducing a second

recording medium with a substrate thickness of approximately 0.6 mm.

27. (Original) The optical recording/reproducing apparatus as claimed in claim 26, wherein the numerical aperture control means controls the numerical aperture of the objective lens into about 0.24, thereby recording and reproducing a third recording medium with a substrate thickness of approximately 1.2 mm.